



# Air Quality and Your Health



Air pollution can affect your health and the environment. This guide shows ways to protect your family's health when air pollution reaches unhealthy levels for ground-level ozone (the major ingredient of summertime "smog") and fine particulate matter (small particles).

The New Hampshire Department of Environmental Services (DES) provides information on daily expected air quality levels in New Hampshire on the air quality information line at **1-800-935-SMOG** and on the DES website at [www.airquality.nh.gov](http://www.airquality.nh.gov).

## Air Quality Guide for Ozone and Fine Particulate Matter

Air Quality Descriptor	Populations Affected and Recommended Actions	
	Ozone	Fine Particulate Matter (small particles)
Good	No health impacts expected in this range.	No health impacts expected in this range.
Moderate	Unusually sensitive people* should consider limiting prolonged outdoor exertion.	Unusually sensitive people should consider reducing prolonged or heavy exertion.
Unhealthy for Sensitive Groups	Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion.	People with heart or lung disease, older adults and children should reduce prolonged or heavy exertion.
Unhealthy	Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion.	People with heart or lung disease, older adults and children should avoid prolonged or heavy exertion. Everyone else should reduce prolonged or heavy exertion.
Very Unhealthy	Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.	People with heart or lung disease, older adults and children should avoid all physical activity outdoors. Everyone else should avoid prolonged or heavy exertion.
Hazardous	Everyone should avoid all outdoor exertion.	Everyone should avoid all physical activity outdoors; people with respiratory or heart disease, the elderly and children should remain indoors and keep activity levels low.

Source: U.S. Environmental Protection Agency

\* Unusually sensitive refers to individual people who are highly vulnerable to the effects of air pollution.

## What You Should Know About Ozone and Fine Particulate Matter

- Ozone is a major component of summertime smog. Ozone can limit the ability to take a deep breath and can cause coughing, throat irritation, and breathing discomfort. Ozone can also lower resistance to respiratory disease such as pneumonia, damage lung tissue, and aggravate chronic lung disease such as asthma or bronchitis. Children and those with pre-existing lung problems, such as asthma, are most sensitive to the health effects of ozone. Even healthy adults involved in moderate or strenuous outdoor activities can experience the unhealthy effects of ozone.
- Fine particulate matter includes small (microscopic) solid particles and liquid droplets found in air. These can accumulate in the respiratory system and aggravate existing diseases such as asthma and chronic bronchitis. Children and the elderly are especially at risk and may not be able to breathe deeply when levels of small particles are elevated. Premature death is possible at very high levels of exposure.
- Sources of ozone and small particles include cars, trucks, buses, industrial facilities, power plants, and wood burning.

### Air Quality Action Days

An Air Quality Action Day may be declared in New Hampshire when ozone or fine particulate matter is forecast to reach unhealthy levels. During Air Quality Action Days, people are encouraged to take precautionary measures to protect their health, as described in the color-coded Guide, especially in the afternoon when ozone pollution levels tend to be the highest. In addition, people are encouraged to take actions to reduce air pollution.

### How You Can Help Keep the Air Clean

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>• Conserve energy at home, at work – everywhere.</li><li>• Choose a cleaner commute – share a ride to work or use public transportation.</li><li>• Defer use of gasoline-powered lawn and garden equipment on Air Quality Action Days.</li><li>• Refuel your car in the evening when it's cooler.</li><li>• Combine errands and reduce trips.</li><li>• Reduce idling of cars and trucks, especially diesel vehicles.</li><li>• Use household, workshop, and garden chemicals in ways that keep evaporation to a minimum, or try to delay using them when poor air quality is forecast.</li><li>• Limit wood burning when possible.</li></ul> | <ul style="list-style-type: none"><li>• In the summer, set air conditioners no lower than 78 degrees.</li><li>• Follow gasoline refueling instructions for efficient vapor recovery. Be careful not to spill fuel and always tighten your gas cap securely.</li><li>• Keep car, boat, and other engines tuned up according to manufacturers' specifications.</li><li>• Be sure your tires are properly inflated.</li><li>• Carpool, use public transportation, bike, or walk whenever possible.</li><li>• Use environmentally safe paints and cleaning products whenever possible.</li><li>• Follow manufacturers' recommendations for use of household products and properly seal cleaners, paints, and other chemicals to prevent evaporation of smog-forming chemicals into the air.</li></ul> |
|---|---|

For information on the health effects of air pollution, call the New Hampshire Department of Health and Human Services at **1-800-852-3345, ext. 4664** or the American Lung Association at **1-800-83-LUNGS**. Additional information is available at EPA's website [www.epa.gov/airnow](http://www.epa.gov/airnow).

**New Hampshire – Doing Our Share for Clean Air!**